

CLAIMS

1. Powder substrate alloys of a metal comprising one or both of tantalum and niobium or nitrides thereof incorporating a mixed in and alloyed therewith silicon component.

5 2. The substrate of claim 1 as sintered to a porous anode mass with enhanced porosity of substantially uniform higher pore sizes compared to Ta, Nb, NbN alone, as sintered.

3. The anode mass of claim 2 as formed to establish a dielectric oxide of the alloy at pore walls.

10 4. A fully packaged electrolytic capacitor incorporating the claim 3 anode.

5. The products of any of claims 1-4 with a wgt. ratio of about (Ta, Nb)₉Si₂ with or without presence of nitrogen.

alpha beta gamma